UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
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SEP 29 2014

Ms. Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First Street NE, Room 1A
Washington, DC 20426

Subject: Draft Environmental Impact Statement for the York Haven, Muddy Run, Conowingo Projects, Pennsylvania and Maryland, July 2014, (Project Nos. 1888-030, 2355-018, 405-106), CEQ# 20140212

Dear Secretary Bose:

In accordance with Section 102(2) (c) of the National Environmental Policy Act (NEPA), 42 U.S.C. § 4332(2) (c), Section 309 of the Clean Air Act, 42 U.S.C. § 7609, and the Council on Environmental Quality (CEQ) regulations, 40 CFR Parts 1500-1508, the United States Environmental Protection Agency (EPA), has reviewed the Draft Environmental Impact Statement (EIS) for the above-referenced projects and is providing the enclosed comments.

As you are aware, the Draft EIS is for the Federal Energy Regulatory Commission (FERC) relicensing of the three hydroelectric projects located on the lower Susquehanna River (collectively referred to as the Susquehanna River Projects). These projects are: the York Haven Hydroelectric Project, the Muddy Run Pumped Storage Project and the Conowingo Hydroelectric Project (Conowingo). The York Haven Hydroelectric Project, located in the city of York, in York, Dauphin, and Lancaster Counties, Pennsylvania, is owned and operated by the York Haven Power company. The Muddy Run Pumped Storage Project in located in Lancaster and York Counties, Pennsylvania and the Conowingo Hydroelectric Project is located in Cecil and Harford Counties, Maryland; both are owned and operated by Exelon.

The alternatives analyzed in the Draft EIS included:

- The No-Action alternative – all the projects (York Haven, Muddy Run and the Conowingo) would continue to operate under the terms and conditions of the existing licenses, and no new environmental protection, mitigation, or environmental measures would be implemented;

- Applicant's Proposals – the applicant has proposed a number of operational and environmental measures related to the enhancement of fish passage. Noted measures include: for the York Haven Project, the construction of a nature-like fishway and the incorporation of the resource agencies' settlement agreement; and

for Conowingo Project, the construction of an eel trap and transport facility on the west side of the tailrace and a similar facility on the east side of the tailrace or in the Octoraro Creek; and

- Staff Alternative (the Preferred Alternative) – the Susquehanna River Projects would include most of the Applicant's Proposals and would also provide for enhancements to recreational, cultural and ecological management plans.

Since 1927, the Susquehanna River Projects have benefitted the area by providing renewable, zero carbon emission hydroelectric power. In addition, the Conowingo Dam has long trapped and stored sediment and associated nutrients within the reservoir behind the Dam, effectively preventing some of these pollutants from entering into the Chesapeake Bay. However, the US Army Corps of Engineers recently conducted the Lower Susquehanna River Watershed Assessment (LSRWA), in coordination the Maryland Department of the Environment, the Susquehanna River Basin Commission and The Nature Conservancy, which is a comprehensive study to fully assess sediment and nutrient flow in the Susquehanna River. The draft LSRWA analyzes the role of the Conowingo Dam as well as the other three dams on the lower Susquehanna River in storing sediment and nutrients. The draft LSRWA further provides analysis and estimated cost ranges for management options to address the accumulation of sediment and nutrients. The draft LSRWA found that the Conowingo Dam has reached effective trapping and long-term storage capacity and that the resultant increases in nitrogen and phosphorus pollutant loads entering the Chesapeake Bay are affecting the health of the Bay ecosystem.

While the Susquehanna River Projects have provided renewable energy to the area, they are not without environmental consequences. The Susquehanna River Projects have significantly altered the aquatic ecology both upstream and downstream of the facilities. Those impacts include conversion from a lotic aquatic ecosystem to a lentic ecosystem, barriers to migratory fish passage, and restriction of the natural sediment and nutrient transport. As a result, the water quality and habitat management of the Chesapeake Bay watershed has evolved to take into account these changes to the river system.

As discussed in EPA's August 6, 2013 letter, the trapping capacity of nutrients and sediment by the Conowingo Dam (along with the York Haven, Safe Harbor and Holtwood Dams) is a significant factor in the delivery of those pollutants to the Chesapeake Bay, which EPA considered in the development of the Bay Total Maximum Daily Load (TMDL). EPA set forth its analysis, the data supporting its conclusions, and assumptions of storage capacity in Section 10.6 (pages 10-7 to 10-8 of the TMDL) and Appendix T to the Bay TMDL, which were attached to the August letter. Because the storage capacity of the Conowingo Dam pond has been reached, new contributions of sediment and associated other pollutants migrating downstream, as well as the sediment scoured from behind the dam, jeopardize attainment of the water quality standards for the Bay. The operators of the Susquehanna River Projects along with other stakeholders in the watershed share responsibility in addressing this issue.

EPA has determined that the Draft EIS does not consider important information such as that provided in the LSWRA and does not identify significant environmental impacts that should be avoided in order to adequately protect the environment. Needed corrective measures, which

are not documented within the Draft EIS, may require substantial changes to the preferred alternative or consideration of some other project alternatives. As you know, section 4(e) of the Federal Power Act requires that FERC "shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality." (16 U.S.C. § 797(e)). Unfortunately, the Draft EIS does not seem to provide that equal consideration and address important environmental concerns. Below is a summary of the information not considered and the potential significant impacts, with further details included in the enclosed comments:

- The Draft EIS does not assess current literature for the Susquehanna River system. The evaluation of sediment storage capacity is based on outdated data and should include or address new findings from the LSWRA. Current TMDL assessment data, including for PCBs, flow, and wildlife passage, should be incorporated in the analysis for decision-making.

- The project study area is overly limited (from Harrisburg to the mouth of the Susquehanna River at Havre de Grace, MD); as a result, the Draft EIS does not consider adverse water quality and aquatic life impacts to the greater tidal Chesapeake Bay. Acknowledgement and assessment of these impacts are needed in order to consider the range of options available to address water quality and ecosystem restoration.

- The endangered species management plan, flow management plan, and adaptive management plan as they apply to fish passage should be given stronger weight in the draft EIS to be consistent with the equal consideration provision of the Federal Power Act, Section 4(e). EPA suggests that the recommendations of the US Fish and Wildlife Service and the PA Fish and Boat Commission be included as license conditions, as these commitments and activities are critical to maintaining or restoring ecosystems impacted by the hydropower facilities.

- The Draft EIS does not consider the effects of PCB impairment in the Conowingo Pool and the effect of those PCBs on water quality and natural resources in the Susquehanna River and the Chesapeake Bay.

- The Draft EIS does not consider the effects of climate change on the Susquehanna River and Chesapeake Bay over the course of the decades-long license for the Susquehanna River Projects.

EPA has developed a set of criteria for evaluating and rating Draft Environmental Impact Statements. This rating system provides a basis upon which EPA makes recommendations to the lead agency. EPA's rating system consists of a two-part alphanumeric evaluation. The alpha criterion evaluates the environmental impact of the proposed action. The numeric criterion evaluates the adequacy of the Draft EIS. Based on this rating system, EPA has rated the Draft EIS for the Susquehanna River Projects as an Environmental Objections 2 (EO-2). The EO rating means the review has identified significant environmental impacts that should be avoided

in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternatives. The 2 rating indicates that the Draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment. A copy of our rating system is enclosed, and can also be found at: http://www.epa.gov/compliance/nepa/comments/ratings.html. The basis for the EPA rating of an EO-2 is reflected in the enclosed comments.

Detailed comments and recommendations to improve the analysis in the EIS and options to include in the preferred alternative are presented in the technical enclosure. EPA suggests that the additional information needs to be assessed to allow for decision making for the re-licensing of the Susquehanna River Projects.

EPA appreciates the opportunity to provide comments on these important and environmentally significant projects. We would like to schedule a meeting to discuss our comments and concerns with you, and ask that FERC fully consider our comments and provide additional documentation and additional recommended measures in the Final Environmental Impact Statement. If you have any questions, please contact me at 215-814-2702 or have your staff contact Kevin Magerr at (215) 814-5724.

Sincerely,

John R. Pomponio, Director
Environmental Assessment and Innovation Division

Enclosures

Enclosure

EPA Technical Comments on the Draft EIS for the York Haven, Muddy Run, and Conowingo Projects, July 2014 (Project Nos. 1888-030, 2355-018, 405-106) CEQ# 20140212

EPA has determined that FERC's Draft EIS for the relicensing of the York Haven, Muddy Run, and Conowingo Dams (collectively referred to herein as the Susquehanna River Projects) does not consider important information such as the draft Lower Susquehanna River Watershed Assessment (LSRWA) conducted by the US Army Corps of Engineers in coordination the Maryland Department of the Environment, the Susquehanna River Basin Commission and The Nature Conservancy, which is a comprehensive study to fully assess the role of the Susquehanna River Projects in storing sediment and nutrients. The Draft EIS also does not identify significant environmental impacts that should be avoided in order to adequately protect the environment and meet water quality standards. Needed corrective measures, which are not documented within the Draft EIS, may require substantial changes to the preferred alternative or consideration of some other project alternatives. This enclosure provides a detailed description of the information and the potential significant impacts that were not considered in the Draft EIS.

1. The geographic scope of the analysis for the EIS is insufficient and needs to be expanded in the Final EIS.

On page 59 under section 3.2.1 Geographic Scope, the Draft EIS text states that:

> "The geographic scope of the analysis defines the physical limits or boundaries of the proposed action's effects on the resources. Because the proposed action would affect resources differently, the geographic scope for each resource may vary. For the four identified resources, we identified the geographic scope as extending from Harrisburg, Pennsylvania, located upstream of the York Haven Project, downstream to the mouth of the Susquehanna River at Chesapeake Bay. We chose the above geographic bounds because the effects of proposed project operation and potential environmental measures on the identified resources, in combination with other activities in the basin, are limited to these areas."

This text does not reflect a consideration of the LSRWA which reports that the Susquehanna River Projects impact Chesapeake Bay tidal water quality down the length of the mainstem Chesapeake Bay's deep channel to just north of the mouth of the tidal Patuxent River and into the lower Chester Rivers and Eastern Bay. These tidal water quality impacts, assessed as increases in non-attainment of Maryland's water quality standards, are directly attributable to the presence and operation of the Conowingo facility. For further consideration By FERC, EPA will be providing a complete copy of the draft LSRWA report and supporting technical appendices in a separate letter.

EPA requests that FERC extend the geographic scope of the EIS to encompass the mainstem Chesapeake Bay, from where the tidal Susquehanna River enters the Susquehanna Flats down to just north of the mouth of the tidal Patuxent River as well as the lower Chester River and the

Eastern Bay. This geographic area is clearly and legally delineated with Maryland state water quality regulations by the follow set of Chesapeake Bay segments[1]:

- Northern Chesapeake Bay Segment (CB1TF)
- Upper Chesapeake Bay Segment (CB2OH)
- Upper Central Chesapeake Bay Segment (CB3MH)
- Middle Central Chesapeake Bay Segment (CB4MH)
- Lower Chester River Segment (CHSMH)
- Eastern Bay Segment (EASMH)

Due to its limited geographic scope, the Draft EIS is not adequate to fully assess the documented impacts on the Chesapeake Bay and applicable water quality standards.

EPA also notes that, even if FERC modifies the project boundary to remove many acres of land downstream from the Conowingo Dam, the flow of nutrients and sediment down to the Chesapeake Bay will continue regardless, and adverse water quality impacts from those pollutants still should be considered. The project boundary does not change the scientific and geomorphic effect of the Dam on downstream water quality, and does not change the extent of downstream impacts that should be considered in the EIS.

2. The EIS should reflect the current scientific understanding of the Conowingo Dam's trapping capacity and its impacts on Chesapeake Bay water quality.

The Draft EIS for the Susquehanna River Projects is based on old information regarding the sediment storage capacity of the Conowingo Dam and its reservoir. Although the Draft EIS recognizes the LSRWA's existence, it does not consider the LSRWA's findings. Significantly, the Draft EIS does not discuss or recognize the impacts that sediment and associated nutrients scoured from the reservoir behind the Conowingo Dam have on Chesapeake Bay water quality and aquatic life.

As an example, FERC's statement that "Conowingo Pond may be filled sometime between 2023 and 2038 and then would reach a state of dynamic equilibrium in which the net change in sedimentation (deposition during low flows and scour during floods) would remain relatively constant" (see page 68, second paragraph, second sentence) is based on previously reported findings that conflict with the more recent findings of the LSRWA. In our August 6, 2013 letter to FERC in response to FERC's notice of Ready for Environmental Analysis, EPA "strongly recommend[ed]" that FERC "include the results of the Corps study as part of the EIS under the National Environmental Policy Act.".

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[1] These segments are fully documented in the following US EPA publications: U.S. Environmental Protection Agency. 2004. *Chesapeake Bay Program Analytical Segmentation Scheme: Revisions, Decisions and Rationales 1983–2003.* EPA 903-R-04-008. CBP/TRS 268/04. U.S. Environmental Protection Agency, Region 3, Chesapeake Bay Program Office, Annapolis, MD; and USEPA (U.S. Environmental Protection Agency). 2005. *Chesapeake Bay Program Analytical Segmentation Scheme: Revisions, Decisions and Rationales 1983-2003. 2005 Addendum.* EPA 903-R-05-004. CBP/TRS 278-06. U.S. Environmental Protection Agency, Region 3 Chesapeake Bay Program Office, Annapolis, MD.

FERC should revise the analysis presented in the Draft EIS to reflect the findings from the LSRWA, which reflects years of intensive assessments, model simulations, options analyses, and more. Further, FERC should evaluate and incorporate new research, replacing the now outdated cited references (e.g., Langland, 2009) with more recent scientific understandings documented in the LSRWA. Although EPA recognizes that this will require significant revisions to the EIS, it is critical to do so in order to adequately consider the environmental effects of the potential relicensing of the Susquehanna River Projects.

3. FERC should consider mitigation of the Conowingo Dam and Reservoir's contribution to Chesapeake Bay water quality impacts within the Final EIS and Re-licensing.

The LSRWA provides extensive documentation demonstrating the direct connection between the presence and operation of the Conowingo facility, and increases in sediment and associated nutrient pollutant loads to the Chesapeake Bay during storm flow events. EPA requests that FERC reconsider the statement "We find no justification at this time for requiring Exelon to implement measures such as dredging to help control sediment and nutrient loading in the Bay, which would occur in the long term whether or not Conowingo dam was in place" found at the bottom of page 128 to reflect the more recent scientific understandings of the Conowingo Dam and reservoir system and its direct impacts on Chesapeake Bay water quality conditions.

EPA first notes, with approval, that FERC does seem to agree in this statement that sediment and nutrients from behind the Conowingo Dam do make their way to the Chesapeake Bay. However, FERC's point that such pollutant loads "would occur in the long term whether or not Conowingo Dam was in place" does not reflect the reality that for the past almost 90 years, the presence of the Conowingo Dam and reservoir and its, until recently, significant pollutant trapping and storage capacity, have profoundly influenced pollutant reduction choices and solutions. It is acknowledged that the presence of the Conowingo Dam has not precluded improvements to sediment and nutrient controls in the watershed, but water quality and ecosystem management decisions have been based on the existence of the dam with its wide-ranged influence on the Susquehanna system. Without creative management, the current and future condition of the Conowingo sediment pool will result in the facility's contribution to the increased loads of sediment and associated nutrient pollutants to the Chesapeake Bay. Therefore, it is appropriate for the Conowingo facility to be part of the long term solution.

EPA requests FERC to significantly revise the EIS to fully reflect the more recent, documented scientific understanding of the effect of the Conowingo Dam and reservoir on the increasing sediment and associated nutrient pollutant loads to the Chesapeake Bay. Further, EPA requests that FERC recognize the important role the Conowingo facility must now play as part of the long-term solution.

4. The Conowingo Dam Project should include a bog turtle management plan (Section 5.1.3.3, Conowingo Project, Measures Not Recommended).

FERC's rejection of the bog turtle management plan for the Conowingo Dam portion of the project recommended by the Department of the Interior (the US Fish and Wildlife Service (USFWS)) is unreasonable. According to the Draft EIS, FERC rejected that plan because,

"although Interior states that bog turtles have been observed close to Conowingo dam and recommends a bog turtle management plan, it has yet to provide evidence to indicate that bog turtles are present within the Conowingo Project boundary, and Exelon states that there is no evidence of bog turtles in the project area. Thus, staff cannot presently determine if bog turtles would be affected by the Conowingo Project." Draft EIS at p. xxxviii; see also Draft EIS at pp. xxxv, 10-11). However, Excelon Corp's own document entitled: "Final Study Report – Study to identify potential habitat of Bog Turtle - RSP 3.9A – Muddy Run Pumped Storage Project. FERC Project Number 2355" (August 2012) stated that "Bog Turtle populations are also known to occur within 5 miles of the Conowingo Dam in adjoining Harford County, Maryland (Morrow et al. 2001)."

Further, as noted above, even if FERC modifies the project boundary to remove many acres of land downstream from the Conowingo Dam, the flow of nutrients and sediment down to the Chesapeake Bay will continue regardless, and these effects – including the effect on the bog turtles and their habitat – should be considered. It is not unreasonable for the facility to implement a bog turtle management plan. An adaptive management process can be used such that if the company completes surveys and documents a lack of habitat and bog turtle presentations then the bog turtle management plan can be revised.

5. The Conowingo Dam Project should include a flow management plan (Section 5.1.3.3, Conowingo Project, Measures Not Recommended).

The adoption by FERC of the flow management plan recommended by the USFWS would serve to address some environmental issues resulting from the Conowingo Dam's modification of flow regime. The Nature Conservancy (TNC) Flow Regime represents the state of the science on the subject of natural flow regimes on aquatic ecosystems and was developed as a cooperative project with state and federal agencies.

EPA strongly supports making the needed changes in flow management at the Conowingo Dam. The Susquehanna Flats and the upper Chesapeake Bay are extremely critical spawning and nursery grounds for a host of recreationally, commercially, and ecologically important fish species that are flow dependent for these important life stages.

6. The Conowingo Dam Project should include upstream fish passage as recommended by the U.S. Department of Interior and the Pennsylvania Fish and Boat Commission (PAFBC) (Section 5.1.3.2, Conowingo Project, Additional Measures Recommended by Staff for Conowingo, Upstream Fish Passage).

EPA supports the installation and operation of the adaptive management approach to upstream fish passage as recommended by the U.S. Department of the Interior and the Pennsylvania Fish and Boat Commission (PAFBC). The goal of the fish passage projects is to allow the successful passage of the American Shad, American Eel and other fish beyond the Conowingo Dam so that they can regain access to historic spawning streams that are currently blocked by the dam structures.

The PAFBC has recommended a reasonable adaptive management approach to determine if modification is required for the fish passage structures. The PAFBC is proposing a series of studies to determine if the American Shad (and other migratory fish) are able to successfully use the existing fish passage structures. EPA considers it reasonable to adopt the proposed PAFBC studies and other studies on evaluating the success of the fish passage structures and using the adaptive management approach to meet the goals. The Draft EIS should address shortcomings of the environmental goal of the successful passage of fish to their historic spawning grounds. The adaptive management process would allow the licensee and the resource agencies to find solutions to identified problems over the life of the license.

EPA recommends that FERC work with the natural resource agencies and Exelon to define successful fish passage and to determine when structural improvements are required at the facilities prior to the issuance of the Final Environmental Impact Statement.

The license under consideration would have an effective life as much 50 years. If the proposed fish passage improvements do not fulfill the goals of the fish passage structures then an alternative would require waiting upwards of 50 years for the next license renewal to address the potential shortcomings of successful fish passage goals. EPA recommends adopting PAFBC's recommendations.

7. EPA recommends adopting a modified version of the PAFBC's recommendation "to transport 1 million eels annually from 2015 to 2030 to sites above the Conowingo and York Haven dams until permanent volitional facilities are operating effectively".

FERC, the resource agencies and Exelon should define "operating effectively" prior to the issuance of the Final EIS. If acceptable numbers of eels and other migratory fish are not able to migrate above the Conowingo and York Haven dam structures then the license should contain provisions to address the issue. Rather than dismissing the recommendation of the PAFBC for transporting eels above the two facilities due to the potential unknown number of eels downstream of the dams, we believe that FERC should work with the resource agencies to require annual population surveys of the eels downstream of the dams and then require that an ecologically significant portion of the downstream population be transported above the dams on an annual basis.

8. The Conowingo Dam Project should include PAFBC's recommendation to reduce stranding of migratory fish (Section 5.1.3.3, Conowingo Project, Measures not Recommended).

EPA supports PAFBC's recommendation to reduce stranding of migratory fish by (1) extending the retaining wall at the east end of the east fish lift or adding boulder fill in that area to prevent generation flow from flooding the spillway pool at high levels of generation, or (2) dredging a channel(s) from the spillway pool area to downstream areas to provide egress for stranded fish. EPA suggests using an adaptive management approach and, if additional information develops over the life of the license timeframe to indicate that fish stranding is a problem, then structural or other appropriate changes should be implemented. The FERC license should provide a definition of unacceptable conditions of fish stranding at the facilities and should require

periodic assessments of fish stranding conditions based on discussions with the resource agencies.

9. FERC should consider PCB impairment in the Conowingo Pool in the EIS.

PCB impairment in the Susquehanna River is an ongoing issue that should be considered in FERC's EIS for the Susquehanna River Projects. The State of Maryland listed the waters of the Lower Susquehanna River and the Conowingo Pool as impaired by PCBs in fish tissue in 2002 and 2008. Maryland began work on a PCB TMDL for the Lower Susquehanna River; that work showed that high reductions of PCB loadings would be required from the Conowingo Dam. To develop a PCB TMDL for the Conowingo Pool, more information and data is needed in order to determine if the sources of PCBs are from the bottom sediments of the Conowingo Pool or from upstream of the Conowingo Dam. Maryland has developed a monitoring program to characterize the PCBs in the Conowingo Pool, to determine the extent of the impairment, and to support the model for the PCB TMDL.

Since part of the Conowingo Pool watershed is in Pennsylvania, Maryland has reached out to Pennsylvania to conduct a comprehensive characterization of the Conowingo Pool. Pennsylvania's Draft 2014 303(d) list identifies the mainstem of the Susquehanna River as impaired for PCBs extending 128.07 miles from Sunbury, Pennsylvania at the confluence of the West Branch of the Susquehanna to the Maryland/Pennsylvania border. Maryland and Pennsylvania will work together to monitor PCBs in the Conowingo Pool. Although a complete characterization of PCBs in the Conowingo Pool has not been completed, current information shows that PCB contamination should be considered in future plans regarding the Conowingo Dam and Pool.

10. The Draft EIS should consider how climate change over the life of the license could modify the Susquehanna River Projects' effects on water quality and aquatic life resources.

Although the Draft EIS discusses the climatic and cultural history of the area affected by the Susquehanna River Projects going back to 12,000 B.C. (see Draft EIS at pp. 283-284), it makes no mention or consideration of the potential climatic changes over the course of the decades-long license. Such an omission is unreasonable; in fact, without considering the potential effects of climate change, there can be no assurance that FERC has included adequate measures for protection of threatened and endangered species, migration of fish and eels, recreational use of the water body, and protection of water quality standards (including those of Maryland and Virginia in the Chesapeake Bay mainstem). As noted in EPA's August 6, 2013 letter, the US Climate Change Science Program has found that climate change in the region may result in increased frequency and intensity of storm events further exasperating dam pool scour. (See Our Changing Planet, The U.S. Climate Change Science Program for Fiscal Year 2009, Highlights of Recent Research and Plans for FY 2009). EPA requests that FERC consider the effects of climate change on the Susquehanna River Projects before finalizing the EIS.

RATING THE ENVIRONMENTAL IMPACT OF THE ACTION

- **LO (Lack of Objections)** The review has not identified any potential environmental impacts requiring substantive changes to the preferred alternative. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposed action.
- **EC (Environmental Concerns)** The review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact.
- **EO (Environmental Objections)** The review has identified significant environmental impacts that should be avoided in order to adequately protect the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). The basis for environmental Objections can include situations:
    1. *Where an action might violate or be inconsistent with achievement or maintenance of a national environmental standard;*
    2. *Where the Federal agency violates its own substantive environmental requirements that relate to EPA's areas of jurisdiction or expertise;*
    3. *Where there is a violation of an EPA policy declaration;*
    4. *Where there are no applicable standards or where applicable standards will not be violated but there is potential for significant environmental degradation that could be corrected by project modification or other feasible alternatives; or*
    5. *Where proceeding with the proposed action would set a precedent for future actions that collectively could result in significant environmental impacts.*
- **EU (Environmentally Unsatisfactory)** The review has identified adverse environmental impacts that are of sufficient magnitude that EPA believes the proposed action must not proceed as proposed. The basis for an environmentally unsatisfactory determination consists of identification of environmentally objectionable impacts as defined above and one or more of the following conditions:
    1. *The potential violation of or inconsistency with a national environmental standard is substantive and/or will occur on a long-term basis;*
    2. *There are no applicable standards but the severity, duration, or geographical scope of the impacts associated with the proposed action warrant special attention; or*
    3. *The potential environmental impacts resulting from the proposed action are of national importance because of the threat to national environmental resources or to environmental policies.*

RATING THE ADEQUACY OF THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (EIS)

- **1 (Adequate)** The draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.
- **2 (Insufficient Information)** The draft EIS does not contain sufficient information to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the proposal. The identified additional information, data, analyses, or discussion should be included in the final EIS.
- **3 (Inadequate)** The draft EIS does not adequately assess the potentially significant environmental impacts of the proposal, or the reviewer has identified new, reasonably available, alternatives, that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant

environmental impacts. The identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. This rating indicates EPA's belief that the draft EIS does not meet the purposes of NEPA and/or the Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS.